REDACTED

FACSIMILE COVER SHEET

Bechtel Nevada

P. O. Box 98521
Las Vegas, Nevada 89193-8521
RSL/LAS VEGAS AREA OPERATIONS

Date 4/29/03 Pages, NOT including cover sheet 25

TO Brad Jackson	FROM Tiffany Emmitt
Location EPA	Location Nellis Facility / RSL
FAX (404) 562-8896	FAX (702) 295-8716
Phone (404) 562-8925	Phone (702) 295-8916

Comments

Brad-

Your FedEx copy is on it's way. Please call me with any questions or concerns.

Thanks,

Tiffany

[redacted]

Bechtel Nevada

FLORIDA PHOSPHATE MINES AERIAL RADIOLOGICAL SURVEY

Prepared for

U.S. Environmental Protection Agency
Region 4
Waste Management Division
Atlanta, GA

Remote Sensing Laboratory-Nellis (RSL-Nellis)
Operated by
Bechtel Nevada (BN)
for
U.S. Department of Energy (DOE)

Florida Phosphate Mines Aerial Radiological Survey

DISCLAIMER

Required for all intel-related, unclassified projects:

This document was reviewed for classification and deemed unclassified.

4/28/03

Alan J. Will
Manager
Remote Sensing Department

Date

Florida Phosphate Mines Aerial Radiological Survey

CONTENTS

Florida Phosphate Mines Aerial Radiological Survey

1.0 INTRODUCTION

The Remote Sensing Laboratory (RSL), operated by Bechtel Nevada (BN) for the NNSA/NSO propose the use of airborne sensors to perform an area wide mapping of the exposure rate and elevated levels of bismuth-214 (^{214}Bi) activity within the Bone Valley Formation (a.k.a., Phosphate Belt) in west-central Florida. This area is approximately 40 miles wide by 70 miles long (or approximately 2220 square miles). BN will determine the background radiation levels and the areas exhibiting excess or elevated levels of ^{214}Bi activity over the entire proposed survey area using the Aerial Measurement System (AMS) flown in a DOE helicopter. Sophisticated algorithms will be applied to the aerial data to determine the existence and/or extent of the contaminated areas.

All processing documents, file folders, and reports relating to this project will reference the following title: **Florida Phosphate Mines Aerial Radiological Survey.**

2.0 BACKGROUND

Attachment 1 shows the proposed Bone Valley Formation survey area. The proposed survey area will be mapped using an array of twelve 2"x4"x16" sodium iodide detectors flown beneath a twin-engine Bell 412 helicopter. The data are geo-referenced using a high spatial resolution differential Global Positioning System or "GPS". Energy spectra collected during flight allow the system to distinguish between the radiological contamination and simple changes in background radiation. The spectral information can be used to identify specific radioactive isotopes. All of the information is recorded by the AMS data acquisition system – REDAR 5.

A number of flights will be required. Each flight can potentially cover between 3 square miles (or 1920 acres) at an altitude of 150 feet with a 250-foot line space interval and 32.5 square miles (20,800 acres) at an altitude of 500 feet with a 1000-foot line space interval. The exact number of flights required for completion of the survey will depend on air traffic control situations within the survey area (*i.e.*, airport terminal control areas, patterns and activities), weather, and technical requirements.

3.0 SCOPE OF WORK

The proposed work will consist of the following tasks:

A. Attend one preliminary organizational meeting in the vicinity of the survey site with the customer to better define the survey objectives and scope of work (pre-survey meeting).
B. Conduct travel for the survey crew from their home base of operations (RSL-Nellis and Andrews Operations facilities) to the survey site.
C. Interact with the local Air Traffic Control, Federal Aviation Agency, and local airports, as required to obtain the required permissions for the flights. This includes any needed notification procedures or other permits or permissions needed to perform the stated work.

Florida Phosphate Mines Aerial Radiological Survey

D. Obtain aerial radiological data of gamma ray emissions in the 2220-square-mile survey area (approximately 40 miles by 70 miles) as shown in Attachment 1. The survey will be flown at an altitude of 500 ft (152 m) above ground along a set of flight lines spaced approximately 1000 ft (305 m) apart.

E. Re-survey while deployed, with prior customer approval, any detected ^{214}Bi anomalous areas (*i.e.,* minimum survey area size of 1-mile by 1-mile [one-square-mile or 640 acres]), not to exceed 0.1% of the original total survey area size, namely 2.2-square-miles (approximately 1410 acres). These contiguous anomaly survey areas will be flown at an altitude of 150 ft (46 m) above ground along a set of flight lines spaced approximately 250 ft (76 m) apart. If the anomalous areas are not contiguous, the total number of acres to be resurveyed will be decreased on a prioritization basis to remain within the prescribed time and budget identified for the work.

F. Perform a minimum of six ground truth measurements within the survey boundaries using a high-purity germanium detector and a pressurized ion chamber. Specific measurement locations may be limited by safety and security considerations.

G. Analyze the AMS and ground truth data to determine the extent of man-made surface radioactive contamination and convert to standard measurement units. Algorithms appropriate for the identification of areas exhibiting excess or elevated levels of ^{214}Bi activity will be included in the analysis.

H. Prepare and distribute a set of Geographic Information System (GIS) compatible overlay maps of the aerial inferred exposure rate and of the areas exhibiting excess or elevated levels of ^{214}Bi activity. The aerial radiological data will be displayed as a contour map (color-coded contours with designators) superimposed onto either a geo-referenced U.S. Geological Survey (USGS) topographic map and/or a GIS populated place layer map (if available) of the survey area. The aerial data will not be superimposed onto an aerial photograph of the survey area.

I. Prepare and provide to the customer a CDROM containing:

1. General description of the site, primary customer, and purpose for conducting the aerial survey.
2. General description of the survey plan and the dates of the survey.
3. Description of our organization, the equipment used, and the data analyses performed.
4. Summary of the survey results.
5. Summary of any detected anomalies, which include net gamma energy spectral data plots (aerial radiological data overlay maps).
6. Terrestrial gamma exposure rate and excess bismuth-214 contour GIS-based plots.
7. Comparison of the inferred aerial exposure rates with the corroborative ground base measurements that were collected from nominal background radiation areas residing inside the survey area boundaries.
8. One hardbound paper copy of the text is also provided.

Florida Phosphate Mines Aerial Radiological Survey

Note: Spectral plots and/or contour maps printed on 30 inch material and included as deliverables will not be reduced and included in the bound paper copy of the CD-ROM version of the report.

SCOPE OPTIONS 3.0a

There are two scope options associated with this proposal. Both options are cost additive to the fixed cost estimate.

OPTION 1: Survey Summary Report (Formal Version)

This option, to provide a survey report that is subjected to a more rigorous review cycle, is cost additive to the Fixed and Field cost estimates. The following text describes the significant differences between the Formal version of the report and the CD-ROM version:

Survey Summary Report (Formal Version) includes everything cited for the Survey Summary Report (CD-ROM version) and the following:

Spectral plots and/or contour maps printed on 30 inch material and included as deliverables are reduced and included in the bound paper copies of the formal version of the report.

Undergoes formal technical editing and typesetting into an approved standard DOE report format

Draft copies of the report are sent and reviewed by both the customer and DOE. Comments, including graphics changes, are incorporated into the final report.

60 copies of the final report are produced in color. 25 hard copies are distributed to the various DOE managers, as well as various DOE resource and public reading centers. The customer (EPA) receives 10 copies and 25 copies are generally retained at RSL for future use and distribution.

Final published reports are available electronically at http://www.doe.gov/bridge; available to the public from U.S. Department of Commerce National Technical Information Service; and to DOE and their contractors at the U.S. DOE Office of Scientific and Technical Information.

OPTION 2: Post Survey Technical Support to EPA

This option is additive to the Fixed Cost estimate and is described as follows:
This work involves technical support to the EPA in the form of 2 BN Scientists traveling to the survey area to assist personnel with interpreting the data presented in the survey report. Typically this would include participation in formal meetings to discuss and present the information to the public. This option is priced to include 4 trips for 2 scientists, spending 3 weekdays at destination.

Florida Phosphate Mines Aerial Radiological Survey

4.0 COSTS

Bechtel Nevada (BN) is an M&O contractor to the National Nuclear Security Administration, Nevada Site Office (NNSA/NSO). This work will be executed as a Work for Others (WFO) effort and will be performed on a full cost recovery basis.

See Attachments 2 (Fixed Costs), 3 (Field Operations), 4 (Option 1), and 5 (Option 2) for the cost breakdown summaries. This proposal presents costs in two primary categories, one for deployment (fixed) costs and one for field costs. There are also two options presented which are additive to the primary costs. **Deployment costs** include fixed costs to send assets to the field and to return them to home base once the work is complete. Deployment costs are stated as a lump sum. **Field costs** include costs for the BN team to operate while conducting the work in the survey locale and to analyze the data collected and produce deliverables. Field costs are stated in terms of **average cost per field day** to facilitate discussions to limit the size of the area to be surveyed. The amount of area that can be surveyed in a given day is dependent on a number of factors. The exact number of flights required for completion of the survey will depend on air traffic control situations within the survey area (*i.e.*, airport terminal control areas, patterns and activities), weather, and technical requirements.

It is important to note that costs stated per day are valid for days the BN team is in the field regardless of the number of flights flown or the amount of data collected. It is conceivable there could be field days when weather either prevents or limits the number of flights and amount of data collected. In such cases the costs are borne by the customer.

NOTE: Total cost for work is derived by adding the Deployment Costs and the product of the Average Cost per Field Day times the number of field days. Options if selected are additive to result of the calculation.

Assumptions for Average Cost per Field Day

- Average Costs per Field Day (ACFD) are additive to the deployment costs.
- The number of acres surveyed on any given field day depends on several variables including weather, equipment status, size and shape of survey targets and air traffic control requirements.
- ACFD includes all costs for the BN team to remain in and operate in the field including labor, aircraft, fuel, housing, per diem and etc.
- ACFD includes contingency in the amount of 10%.

5.0 MILESTONES

- Attend preliminary planning meeting with the customer.
- Deploy equipment and personnel to field to survey site.
- Perform required fieldwork to obtain aerial and ground data.
- Return equipment and personnel to home base.
- Analyze data for both airborne and ground truth measurements.

- Provide customer with hardcopies of the GIS overlay maps of the aerial results.
- (Option 2)Attend first formal meeting with the customer to discuss/interpret the aerial results.
- (Option 2)Attend second formal meeting with the customer to discuss/interpret the aerial results.
- (Option 2)Attend third formal meeting with the customer to discuss/interpret the aerial results.
- (Option 2)Attend fourth formal meeting with the customer to discuss/interpret the aerial results.
- Provide customer with CDROM of the GIS overlay maps.

6.0 DELIVERABLES

BN will provide the following deliverables:

- Provide GIS overlays of the exposure rate and the excess (or elevated) levels of ^{214}Bi activity superimposed onto a U.S. Geological Survey topographical Base Map and/or a GIS populated place layer map (if available) of the survey area – two maps for each survey site (six copies of each) plus a GIS-compatible electronic copy.
- Provide a CDROM containing the resultant aerial radiological data overlay maps with text explaining how the data was collected and processed.

Progress, status, and budget information will be provided as part of the NNSA/NSO Emergency Management Division (EMD) quarterly reporting system.

7.0 SCHEDULE

This project will begin within 2 months after receipt of funding.

- First Two Months – Coordinate access to airspace and visit the proposed survey area site.
- Third-Fourth Months – Acquire aerial and ground-truth data within limitations of weather and airspace access control scheduling.
- Fourth-Fifth Months – Analyze data and generate GIS-compatible overlay maps
- Sixth to Tenth Months – Prepare a CDROM of the aerial radiological survey results; distribute copies for customer review; obtain NNSA/NSO approval to release report for final distribution.

This work schedule is based on receipt of funds at BN on or before May 28, 2003. The schedule is subject to adjustment if funds are not in place prior to the date indicated. All work for others at BN is accomplished on a non-interference basis with the primary NNSA missions for the facility. Project and task schedules may be adjusted as a result.

Florida Phosphate Mines Aerial Radiological Survey

8.0 RESOURCE REQUIREMENTS

BN will be responsible for providing resources to be applied to the work associated with this project. Manpower, acquisition, and analysis system resources for this project will be provided by BN.

9.0 PROJECT MANAGEMENT

Project manager, David R. Bowman, will be responsible for the work associated with this project. Project reviews with the sponsor will be held when agreed upon milestones are achieved.

10.0 ADMINISTRATION

This project will be conducted by the NNSA's RSL-Nellis and managed by Joseph M. Ginanni, NNSA/NSO EMD.

11.0 FOREIGN TRAVEL REQUIREMENTS

There is no foreign travel associated with this project.

12.0 TRAINING

BN is responsible for providing appropriately trained personnel to assure safe and complete execution of the work specified for this project.

13.0 SECURITY CLASSIFICATION

This project is not classified.

14.0 SPECIAL CONSIDERATIONS

It is NNSA's understanding that the sponsor will make the following statements about this project:

This project does not utilize human or animal subjects as outlined in 10CFR, Part 745.

This agreement is entered into pursuant to the authority of the Economy Act of 1932, as amended (31 USC 1535) and adheres to Federal Acquisition Regulation (FAR) 6.002 and other applicable Federal Laws and regulations. To the best of our knowledge, the work requested will not place the NNSA and its contractor in direct competition with the private sector.

15.0 NATIONAL TECHNICAL MEANS (NTM) REQUIREMENTS

NTM will not be used in this project.

Florida Phosphate Mines Aerial Radiological Survey

16.0 POINTS OF CONTACT (POC)

Sponsor: **U.S. Environmental Protection Agency (EPA)**

Project Officer:	**Brad Jackson, (404) 562-8925** Fax: (404) 562-8896 E-mail: Jackson.brad@epamail.epa.gov
Mailing Address:	Atlanta Federal Center 61 Forsyth Street, S.W. Atlanta, Georgia 30303-3104
Financial POC:	**Brad Jackson, (404) 562-8925** Fax: (404) 562-8896 E-mail: Jackson.brad@epamail.epa.gov
Mailing Address:	Atlanta Federal Center 61 Forsyth Street, S.W. Atlanta, Georgia 30303-3104

NNSA/NSO:

POC:	**Joseph M. Ginanni, (702) 295-0209,** Fax: (702) 295-1062 E-mail: ginanni@nv.doe.gov
Mailing Address:	National Nuclear Security Administration NNSA Nevada Site Office/EMD P.O. Box 98518 Las Vegas, NV 89193-8518

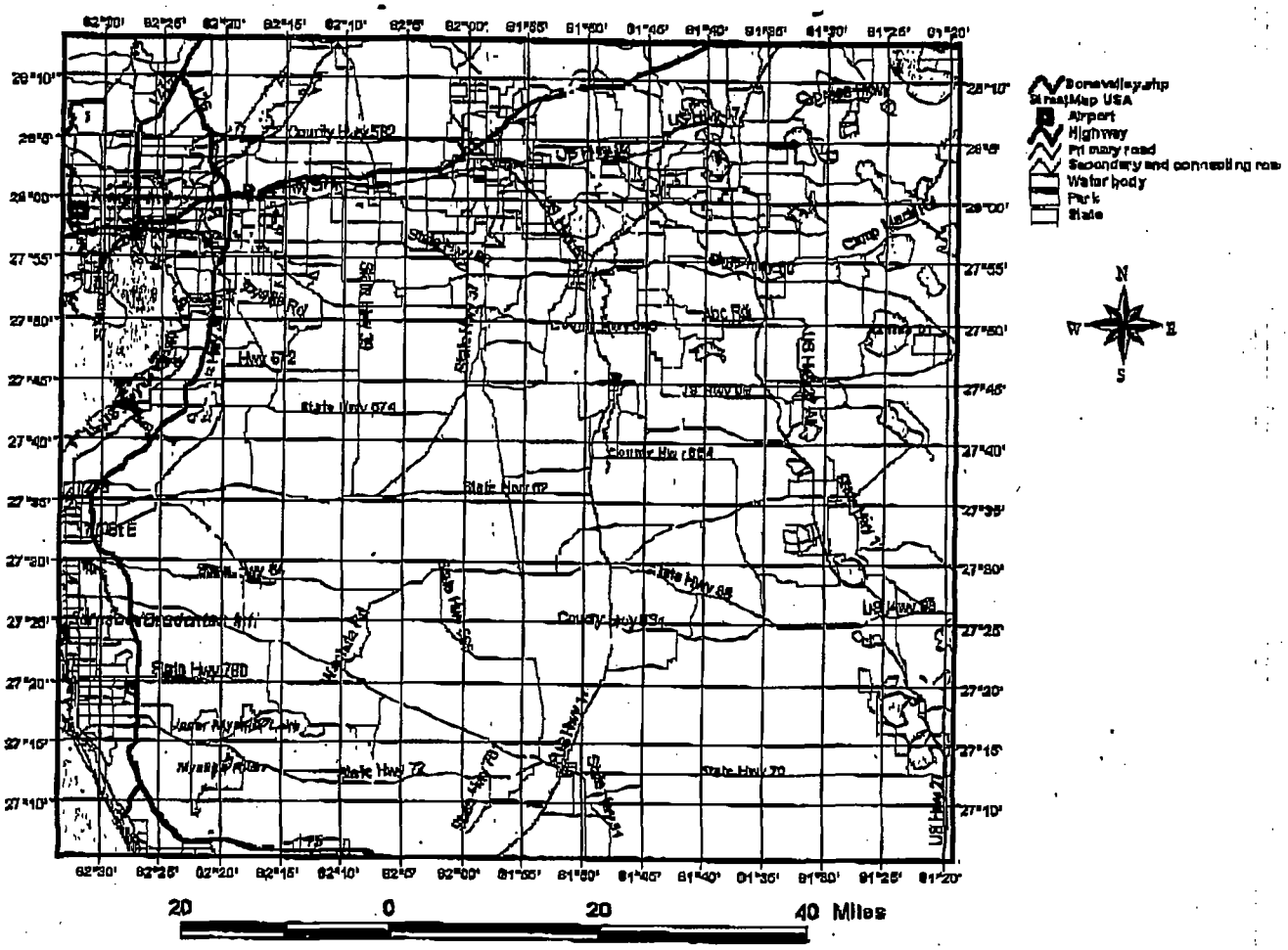
BN/RSL-Nellis:

Project Officer:	**David R. Bowman, (702) 295-8759** Fax: (702) 295-1072 E-mail: bowmandr@nv.doe.gov
Mailing Address:	Bechtel Nevada P.O. Box 98521, M/S RSL-31 Las Vegas, NV 89193-8521
Financial POC:	**Linda K. Jensen, (702) 295-2931** Fax: (702) 295-2108 E-mail: jensenlk@nv.doe.gov

Florida Phosphate Mines Aerial Radiological Survey

Mailing Address:	Bechtel Nevada P.O. Box 98521, M/S CF027 Las Vegas, NV 89193-8521
Project Engineer:	**Larry Zajac, (702) 295-8049** Fax: (702) 794-1057 E-mail: Zajacfl@nv.doe.gov
Mailing Address:	Bechtel Nevada P.O. Box 98521, M/S RSL-11 Las Vegas, NV 89193-8521
Principal Investigator:	**David P. Colton, (702) 295-8765** Fax: (702) 794-1660 E-mail: coltondp@nv.doe.gov
Mailing Address:	Bechtel Nevada P.O. Box 98521, M/S RSL-20 Las Vegas, NV 89193-8521

Florida Phosphate Mines Aerial Radiological Survey



Attachment 1 Bone Valley Formation Survey Area

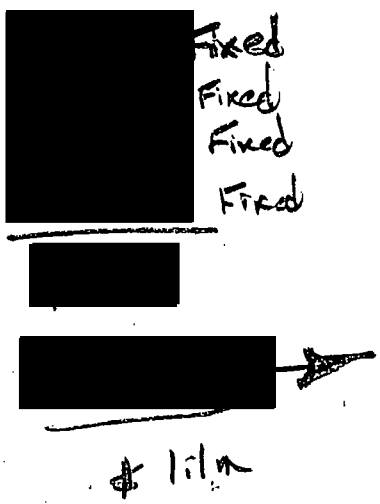
Florida Phosphate Mines Aerial Radiological Survey

ATTACHMENT 2

COST ESTIMATE

Fixed/Deployment Costs:

Labor	[redacted]
Other Direct Charges	
M&S/Subcontract	
Service Centers	
Contingency	
Safeguard & Security Allowance	[redacted]
Federal Administrative Charge	
Subtotal	**$346.8K**



Florida Phosphate Mines Aerial Radiological Survey

ATTACHMENT 3

COST ESTIMATE

Field Costs/Average Costs per Field Day = [redacted]

NOTE: Total cost for work is derived by adding the Deployment Costs and the product of the Average Cost per Field Day times the number of field days. Options, if selected, are additive to the result of the calculation.

Florida Phosphate Mines Aerial Radiological Survey

ATTACHMENT 4

COST ESTIMATE

Option 1 Survey Summary Report (Formal Version):

Labor	[redacted]
M&S/Subcontract	[redacted]
Contingency	[redacted]
Safeguard & Security Allowance	[redacted]
Federal Administrative Charge	[redacted]
Subtotal	**$44.8K**

Florida Phosphate Mines Aerial Radiological Survey

ATTACHMENT 5

COST ESTIMATE

Option 2 Post Survey Technical Support to EPA:

Labor	[redacted]
Other Direct Charges	
Contingency	
Safeguard & Security Allowance	[redacted]
Federal Administrative Charge	
Subtotal	**$63.4K**

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 04/29/03

REQUESTOR: NNSA/NSO PERFORMED BY: NSR Program

SUBJECT: Florida Phosphate Mines Aerial Radiological Survey Fixed Costs

AREA: RSL-Nellis Onsite: ___ Offsite: XXX ESTIMATE NO. CM-03-0037 REV. NO.: 2

ESTIMATE CLASS:	ESTIMATE PURPOSE:		TYPE OF WORK:
XX Order of Magnitude (ROM)	XX Preliminary/Planning/Study	___ Work Order	___ Non-manual Only
___ Preliminary	___ Conceptual/Budget	___ Comparative	___ Manual Only
___ Definitive	___ Title I	___ Other	___ Manual & Non-manual
	___ Title II		___ Other

PROJECT WORK SCOPE IS EXPECTED TO BE PERFORMED BY: (Check all that applies)

___ BN Construction ___ Site Maintenance ___ Subcontract XX Other - RSL

Funds Source: NNSA___ GPP ___ WFO X___ Operating___
Line Item ___ Other DOE Contractor ___ Indirects ___

ESTIMATE BASIS

PURPOSE OF ESTIMATE

To provide Customer with a budget for work scope requested.

SCOPE DEFINITION

The proposed work will consist of the following tasks:

Attend one preliminary organizational meeting in the vicinity of the survey site with the customer to better define the survey objectives and scope of work (pre-survey meeting).

Conduct travel for the survey crew from their home base of operations (RSL-Nellis and Andrews Operations facilities) to the survey site. Interact with the local Air Traffic Control, Federal Aviation Agency, and local airports, as required, to obtain the required permissions for the flights. This includes any needed notification procedures or other permits or permissions needed to perform the stated work.

Prepare and distribute a set of Geographic Information System (GIS) compatible overlay maps of the aerial inferred exposure rate and of the areas exhibiting excess or elevated levels of 214Bi activity. The aerial radiological data will be displayed as a contour map (color-coded contours with designators) superimposed onto either a geo-referenced U.S. Geological Survey (USGS) topographic map and/or a GIS populated place layer map (if available) of the survey area. The aerial data will not be superimposed onto an aerial photograph of the survey area.

Participate in discussions with the customer on the interpretation of the data. This includes attending four formal meetings, in Tampa Bay, Florida, to discuss and present the final data results.

Prepare and provide to the customer a CDROM of the resultant aerial radiological data overlay maps with text explaining how the data was collected and processed.

QUANTITY DEVELOPMENT

N/A

PROJECT SCHEDULE

N/A

CONTRACTING STRATEGY:

N/A

CONSTRUCTION WAGE RATES / UNIT RATE PER HOUR

N/A

INDIRECT RATES

FY03 Rev 0 Rates (09-09-02) were used in this estimate.

ESCALATION:

0 Escalation applied

CONTINGENCY:

10% contingency was included in this estimate

ASSUMPTIONS / EXCLUSIONS:

This is not a stand alone estimate. This estimate works in conjuction with the Florida field Ops cost estimate.

Bechtel Nevada (BN) is an M&O contractor to the National Nuclear Security Administration, Nevada Site Office (NNSA/NSO). This work will be executed as an Work for Others (WFO) effort and will be performed on a full cost recovery basis.

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 04/28/03

This proposal presents costs in two categories, one for deployment costs and one for field costs. Deployment costs include fixed costs to send assets to the field and to return them to home base once the work is complete. Deployment costs are stated as a lump sum. Field costs include costs for the BN team to operate while conducting the work in the survey locale and to analyze the data collected and produce deliverables. Field costs are stated in terms of average cost per field day to facilitate discussions to limit the size of the area to be surveyed. The amount of area that can be surveyed in a given day is dependent on a number of factors. The exact number of flights required for completion of the survey will depend on air traffic control situations within the survey area (i.e., airport terminal control areas, patterns and activities), weather, and technical requirements.

It is important to note that costs stated per day are valid for days the BN team is in the field regardless of the number of flights flown or the amount of data collected. It is conceivable there could be field days when weather either prevents or limits the number of flights and amount of data collected. In such cases the costs are borne by the customer

NOTE: Total cost for work is derived by adding the Deployment Costs and the product of the Average Cost per Field Day times the number of field days

Assumptions for Average Cost per Field Day

Average Costs per Field Day (ACFD) are additive to the deployment costs

The number of acres surveyed on any given field day depends on several variables including weather, equipment status, size and shape of survey targets and air traffic control requirements.

ACFD includes all costs for the BN team to remain in and operate in the field including labor, aircraft, fuel, housing, per diem and etc.

ACFD includes contingency in the amount of 10%

PROJECT COST	$	[redacted]
CONTINGENCY (10%)	$	
Escalation Factor 3.1%	$	-
SAFEGUARD & SECURITY ALLOWANCE 4%	$	
FEDERAL ADMINISTRATIVE CHARGE 3%	$	[redacted]
	$	346,815

Review / Concurrence/Approval:

David Hand 4/28/03
Project Manager Date

Program Manager (Approval < $1M, Concur > $1M Date 4/28/03

N/A Janet Lux See att. e-mail 4/24/03
Financial Officer (Concurs on Reimb Work For Others) Date

Deputy GM (Approval > $1M < $5M, Concur > $5M Date 4/29

Bill Conatser See att. e-mail 4/25/03
Project Control Manager (Approval >$1M) Date

N/A
General Manager (Approval over $5M) Date

CHG NO.: _____ | BECHTEL NEVADA COST ESTIMATE DATA SHEET | DATE: 04/28/03

REQUESTOR: NNSA/NSO PERFORMED BY: NSR Program

SUBJECT: Florida Phosphate Mines Aerial Radiological Survey Field Operations

AREA: RSL-Nellis Onsite: ___ Offsite: XXX ESTIMATE NO. CM-03-0039 REV. NO.: 2

ESTIMATE CLASS:	ESTIMATE PURPOSE:		TYPE OF WORK:
XX Order of Magnitude (ROM)	XX Preliminary/Planning/Study	___ Work Order	___ Non-manual Only
___ Preliminary	___ Conceptual/Budget	___ Comparative	___ Manual Only
___ Definitive	___ Title I	___ Other	___ Manual & Non-manual
	___ Title II		___ Other

PROJECT WORK SCOPE IS EXPECTED TO BE PERFORMED BY: (Check all that applies)

___ BN Construction ___ Site Maintenance ___ Subcontract XX Other - RSL

Funds Source: NNSA ___ GPP ___ WFO X ___ Operating ___
Line Item ___ Other DOE Contractor ___ Indirects ___

ESTIMATE BASIS

PURPOSE OF ESTIMATE

To provide Customer with a budget for work scope requested.

SCOPE DEFINITION

The proposed work will consist of the following tasks:

Obtain aerial radiological data of gamma ray emissions in the 2220-square-mile survey area (approximately 40 miles by 70 miles) as shown in Attachment 1. The survey will be flown at an altitude of 500 ft (152 m) above ground along a set of flight lines spaced approximately 1000 ft (305 m) apart.

Re-survey, with prior customer approval, any detected ^{214}Bi anomalous areas (i.e., minimum survey area size of 1-mile by 1-mile (one-square-mile or 640 acres)), not to exceed 0.1% of the original total survey area size, namely 2.2-square-miles (approximately 1410 acres). These contiguous anomaly survey areas will be flown at an altitude of 150 ft (46 m) above ground along a set of flight lines spaced approximately 250 ft (76 m) apart.

Perform a minimum of six ground truth measurements within the survey boundaries using a high-purity germanium detector and a pressurized ion chamber. Specific measurement locations may be limited by safety and security considerations.

Analyze the AMS and ground truth data to determine the extent of man-made surface radioactive contamination and convert to standard measurement units. Algorithms appropriate for the identification of areas exhibiting excess or elevated levels of 214Bi activity will be included in the analysis.

Aircraft flights fuel, and Maintainance.

QUANTITY DEVELOPMENT

N/A

PROJECT SCHEDULE

N/A

CONTRACTING STRATEGY:

N/A

CONSTRUCTION WAGE RATES / UNIT RATE PER HOUR

N/A

INDIRECT RATES

FY03 Rev 0 Rates (09-09-02) were used in this estimate.

ESCALATION:

0% escalation factor

CONTINGENCY:

10% contingency was included in this estimate

ASSUMPTIONS / EXCLUSIONS:

This is not a stand alone estimate. This estimate works in conjuction with the Florida fixed cost estimate.

Bechtel Nevada (BN) is an M&O contractor to the National Nuclear Security Administration, Nevada Site Office (NNSA/NSO).

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 04/28/03

This work will be executed as an Work for Others (WFO) effort and will be performed on a full cost recovery basis.

This proposal presents costs in two categories, one for deployment costs and one for field costs. Deployment costs include fixed costs to send assets to the field and to return them to home base once the work is complete. Deployment costs are stated as a lump sum. Field costs include costs for the BN team to operate while conducting the work in the survey locale and to analyze the data collected and produce deliverables. Field costs are stated in terms of average cost per field day to facilitate discussions to limit the size of the area to be surveyed. The amount of area that can be surveyed in a given day is dependent on a number of factors. The exact number of flights required for completion of the survey will depend on air traffic control situations within the survey area (i.e., airport terminal control areas, patterns and activities), weather, and technical requirements.

It is important to note that costs stated per day are valid for days the BN team is in the field regardless of the number of flights flown or the amount of data collected. It is conceivable there could be field days when weather either prevents or limits the number of flights and amount of data collected. In such cases the costs are borne by the customer

NOTE: Total cost for work is derived by adding the Deployment Costs and the product of the Average Cost per Field Day times the number of field days

Assumptions for Average Cost per Field Day

Average Costs per Field Day (ACFD) are additive to the deployment costs

The number of acres surveyed on any given field day depends on several variables including weather, equipment status, size and shape of survey targets and air traffic control requirements.

ACFD includes all costs for the BN team to remain in and operate in the field including labor, aircraft, fuel, housing, per diem and etc.

ACFD includes contingency in the amount of 10%

PROJECT COST	$ [redacted]
CONTINGENCY (10%)	$ [redacted]
Escalation Factor 3.1%	$ -
SAFEGUARD & SECURITY ALLOWANCE 4%	$ [redacted]
FEDERAL ADMINISTRATIVE CHARGE 3%	$ [redacted]
	$ 600,791

(amount for 39 field days)

Review / Concurrence/Approval:

Dave Bowe — 4/28/03
Project Manager — Date

Program Manager (Approval < $1M, Concur > $1M) — Date 4/28/03

N/A Janet Lux See att. e-mail 4/24/03
Financial Officer (Concurs on Reimb Work For Others) — Date

Deputy GM (Approval > $1M < $5M, Concur > $5M) — Date

Bill Conting See att. e-mail 4/25/03
Project Control Manager (Approval >$1M) — Date

N/A
General Manager (Approval over $5M) — Date

600.7

39
days

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 03/22/03

REQUESTOR: NNSA/NSO PERFORMED BY: NSR Program

SUBJECT: Florida MinesSurvey Summary Report (Formal Version) Option 1

AREA: RSL- Onsite: ____ Offsite: XXX ESTIMATE NC CM-03-0043 REV. NO.: 0

ESTIMATE CLASS:	ESTIMATE PURPOSE:		TYPE OF WORK:
xx Order of Magnitude (ROM)	xx Preliminary/Planning/Study	____ Work Order	____ Non-manual Only
____ Preliminary	____ Conceptual/Budget	____ Comparative	____ Manual Only
____ Definitive	____ Title I	____ Other	____ Manual & Non-manual
	____ Title II		____ Other

PROJECT WORK SCOPE IS EXPECTED TO BE PERFORMED BY: (Check all that applies)

____ BN Construction ____ Site Maintenance ____ Subcontract ____ Other - RSL

Funds Source: NNSA____ GPP ____ WFO x____ Operating____
Line Item ____ Other DOE Contractor ____ Indirects ____

ESTIMATE BASIS

PURPOSE OF ESTIMATE

SCOPE DEFINITION:

QUANTITY DEVELOPMENT (If applicable)
N/A

PROJECT SCHEDULE
N/A

CONTRACTING STRATEGY: (If applicable)
N/A

CONSTRUCTION WAGE RATES / UNIT RATE PER HOUR (If applicable)
N/A

INDIRECT RATES
FY03 Rev 0 Rates (09-09-02) were used in this estimate.

ESCALATION:
0% escalation factor was applied

CONTINGENCY:
0% contingency was included in this estimate

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 03/22/03

ASSUMPTIONS / EXCLUSIONS:

Survey Summary Report (Formal Version) **OPTION 1**

This option to provide a survey report that is subjected to a more rigorous review cycle is cost additive to the Fixed and Field cost estimates. The following text describes the significant differences between the Formal version of the report and the CD-ROM version:

Survey Summary Report (Formal Version) includes everything cited for the Survey Summary Report (CD-ROM version) and the following:
Spectral plots and/or contour maps printed on 30 inch material and included as deliverables are reduced and included in the bound paper copies of the formal version of the report
Undergoes formal technical editing and typesetting into an approved standard DOE report format
Draft copies of the report are sent and reviewed by both the customer and DOE. Comments, including graphics changes, are incorporated into the final report
60 copies of the final report are produced in color. 25 hard copies are distributed to the various DOE managers, as well as various DOE resource and public reading centers. The customer (EPA) receives 10 copies and 25 copies are generally retained at RSL f or future use and distribution
Final published reports are available electronically at http://www.doe.gov/bridge; available to the public from U.S. Department of Commerce National Technical Information Service; and to DOE and their contractors at the U.S. DOE Office of Scientific and Technical Information.

ADDITIONAL STAFFING REQUIREMENTS: N/A

COST SUMMARY:

PROJECT COST		$ [redacted]
CONTINGENCY (10%)		
SAFEGUARD & SECURITY ALLOWANCE	4%	
FEDERAL ADMINISTRATIVE CHARGE	3%	
TOTAL ESTIMATED COST		44,814

Reviews, Concurrence/Approval:

David Vesa 4/28/03
Project Manager Date

Janet Lux see att e-mail 4/24/03
Financial Officer (Concurs on Reimb Work For Others) Date

Bill Contine see att. e-mail 4/25/03
Project Control Manager (Aproval >$1M) Date

Richard Hargis 4/28/03
Program Manager (Approval < $1M, Concur > $1M) Date

4/29/03
Deputy GM (Approval > $1M < $5M, Concur > $5M) Date

N/A
General Manager (Approval over $5M) Date

CHG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 04/22/03

REQUESTOR: NNSA/NSO PERFORMED BY: NSR Program

SUBJECT: Florida Mines Post Survey Technical Support to EPA Option 2

AREA: RSL- Onsite: ___ Offsite: XXX ESTIMATE NC CM-03-0042 REV. NO.: 0

ESTIMATE CLASS:	ESTIMATE PURPOSE:		TYPE OF WORK:
xx Order of Magnitude (ROM)	xx Preliminary/Planning/Study	___ Work Order	___ Non-manual Only
___ Preliminary	___ Conceptual/Budget	___ Comparative	___ Manual Only
___ Definitive	___ Title I	___ Other	___ Manual & Non-manual
	___ Title II		___ Other

PROJECT WORK SCOPE IS EXPECTED TO BE PERFORMED BY: (Check all that applies)

___ BN Construction ___ Site Maintenance ___ Subcontract ___ Other - RSL

Funds Source: NNSA ___ GPP ___ WFO x ___ Operating ___
Line Item ___ Other DOE Contractor ___ Indirects ___

ESTIMATE BASIS

PURPOSE OF ESTIMATE

SCOPE DEFINITION:

QUANTITY DEVELOPMENT (If applicable)

N/A

PROJECT SCHEDULE

N/A

CONTRACTING STRATEGY: (If applicable)

N/A

CONSTRUCTION WAGE RATES / UNIT RATE PER HOUR (If applicable)

N/A

INDIRECT RATES

FY03 Rev 0 Rates (09-09-02) were used in this estimate.

CEG NO.: _____

BECHTEL NEVADA
COST ESTIMATE DATA SHEET

DATE: 04/22/03

ESCALATION:

0% escalation factor was applied

CONTINGENCY:

0% contingency was included in this estimate

ASSUMPTIONS / EXCLUSIONS:

This option is additive to the Fixed Cost estimate and is described as follows:

This work involves technical support to the EPA in the form of 2 BN Scientists traveling to the survey area to assist personnel with interpreting the data presented in the survey report. Typically this would include participation in meetings to present the information to the public. This option is priced to include 4 trips for 2 scientists

ADDITIONAL STAFFING REQUIREMENTS: N/A

COST SUMMARY:

PROJECT COST		$ [redacted]
CONTINGENCY (10%)		
SAFEGUARD & SECURITY ALLOWANCE	4%	
FEDERAL ADMINISTRATIVE CHARGE	3%	
TOTAL ESTIMATED COST		63,457

Review / Concurrence/Approval:

Doug Sirra 4/28/03
Project Manager Date

Janet Lux See att. e-mail 4/24/03
Financial Officer (Concurs on Reimb Work For Others) Date

Bill Contine See att. e-mail 4/25/03
Project Control Manager (Aproval >$1M) Date

Rick Thompson 4/28/03
Program Manager (Approval < $1M, Concur > $1M) Date

4/25/03
Deputy GM (Approval > $1M < $5M, Concur > $5M) Date

N/A
General Manager (Approval over $5M) Date

FUNDS TRANSMITTAL INSTRUCTIONS

To process this proposal, execute the following steps:

1. Review the enclosed documents.

2. Initiate a funding document.

3. Fax the funding document and scope of work to Joe Ginanni, (702) 295-1062, voice (702) 295-0209.

4. Mail the funding document and scope of work to Joe Ginanni, at the following address:

   National Nuclear Security Administration
   Nevada Site Office
   P.O. Box 98518
   Las Vegas, NV 89193-8518

Should you have any questions, please contact Larry Zajac at (702) 295-8049.